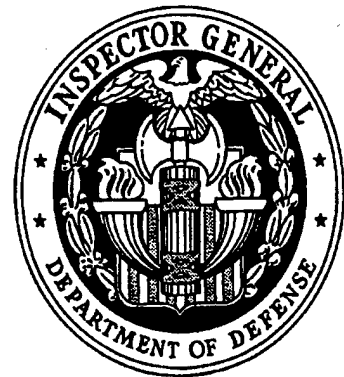


Evaluation



Report

OFFICE OF THE INSPECTOR GENERAL

**THE U.S. MARINE CORPS MARITIME PREPOSITIONING
FORCE ENHANCEMENT PROGRAM**

Report No. 96-009

October 17, 1995

19991216 089

DEPARTMENT OF DEFENSE

ARJ00-03-0751

ACRONYMS

AAWR	Army Afloat War Reserve
ACE	Aviation Combat Element
AOR	Area of Responsibility
AWR	Afloat War Reserve
BUR	Bottom Up Review
CINC	Commander in Chief
DPG	Defense Planning Guidance
EAF	Expeditionary Airfield
EAF 2000	Expeditionary Airfield Package
HMMWV	High Mobility, Multipurpose Wheeled Vehicle
IG, DoD	Inspector General, Department of Defense
IPL	Integrated Priority List
ISO	International Standards Organization
JROC	Joint Requirements Oversight Council
JSCP	Joint Strategic Capabilities Plan
JTF	Joint Task Force
JWCA	Joint Warfighting Capabilities Assessment
LMSR	Large, Medium Speed Roll-on/Roll-off Ship
MPF	Maritime Prepositioning Force
MPFE	Maritime Prepositioning Force Enhancement
MRC	Major Regional Contingency
MRE	Meals Ready To Eat
MRS	Mobility Requirements Study
MSC	Military Sealift Command
NATO	North Atlantic Treaty Organization
NMCB	Naval Mobile Construction Battalion
NMS	National Military Strategy
NTPF	Near Term Prepositioning Force
O&M	Operations and Maintenance
OOTW	Operations Other Than War
POM	Program Objective Memorandum
POMCUS	Prepositioning of Material Configured to Unit Sets
RFP	Request for Proposal
RRF	Ready Reserve Force
SS	Surface Ship
T/E	Table of Equipment
TAVB	Aviation Logistics Support Ship
USMC	United States Marine Corps



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884



October 17, 1995

MEMORANDUM FOR DIRECTOR FOR LOGISTICS, THE JOINT STAFF

SUBJECT: Evaluation of the U.S. Marine Corps Maritime Prepositioning Force Enhancement Program

Enclosed is a report on the Inspector General, Department of Defense, evaluation of the Maritime Prepositioning Force Enhancement (MPFE) Program. We conducted the evaluation in response to your request for information concerning the status of the acquisition initiatives being taken on ship number one; the type, cost, and availability of the additional equipment proposed for embarkation in each MPF squadron; and the origin of the warfighting requirements that MPFE was designed to address.

From our examination of key planning documents and our site visits with Washington based headquarters staffs, 4 geographic Unified Commands, and 12 Component Commands we concluded that:

- Ship acquisition efforts are still underway and options are not yet firmly defined.
- The proposed enhancement equipment is in current inventories and is available for embarkation.
- The Unified Commanders support the concept of maritime prepositioning but significant differences exist on how the assets should be employed.

We hope the report will be of value in your future discussions of the Maritime Prepositioning Program. No formal comments are necessary. Should additional information be needed or assistance in other areas desired, please contact Colonel Timothy T. Turner at (703) 604-9555.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosure

EXECUTIVE SUMMARY

We initiated the evaluation in response to a request from the Director for Logistics (J-4), the Joint Staff, for information on the U.S. Marine Corps Maritime Prepositioning Force Enhancement (MPFE) Program. The Director was particularly interested in data on force acquisition initiatives; the type, cost, and availability of the equipment to be added; and whether the program responded to the stated warfighting requirements of the geographic Unified Commanders. To support the Director's responsibility to brief the status of MPFE to all Unified Commanders during the August Joint Requirements Oversight Council tour, we presented an In Process Review to the Director on July 28, 1995. The evaluation report is the follow-up to that briefing.

In gathering data, we reviewed key planning documents, such as the Defense Planning Guidance, Bottom Up Review, and the Mobility Requirements Study to ascertain the general guidance and tasking provided to the Unified Commanders. We then met with the Joint Staff, Navy, and Marine Corps headquarters personnel in the National Capital Region and with the staffs or commanders of 4 of the 5 geographic Unified Commands and 12 of their 16 Component Commands. The purpose of our meetings and interviews was to validate the costs and availability of equipment and to interpret the priority assigned to the MPFE Program by the Unified Commanders.

Based on our analysis we concluded that:

- Options are still being studied by the Navy staff to identify the best means to acquire the three ships. Cost estimates are not yet available.
- The equipment for the five packages that will be added to each MPF squadron has been identified, is in current Navy and Marine Corps inventories, involves no significant additional acquisition costs, and is available for embarkation.
- The Unified Commanders support the concept of maritime prepositioning but the actual priority assigned by each CINC to the MPFE Program varies with the requirements of his individual geographic area of responsibility.
- The concepts for employment of MPFE vary both within and across the lines of the Areas of Responsibility. The individual Unified Commanders should retain the flexibility to choose from the various employment options and not be limited inappropriately by Service plans or policies.

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	i
PART I - INTRODUCTION	1
Purpose	1
Objectives.....	1
Scope.....	1
Methodology	2
PART II - BACKGROUND	5
PART III - RESULTS OF THE EVALUATION	7
Objective 1	7
Objective 2	9
Objective 3	11
Objective 4	14
Objective 5	16
Objective 6	18
PART IV - SUMMARY	19
APPENDICES	
A. Offices Contacted/Briefed	
B. Data Call Questions	
C. Fleet Hospital Program	
D. Expeditionary Airfield	
E. NMCB Items of Equipment	
F. Table of Equipment Restoration	
G. Review Team Members	

PART I - INTRODUCTION

PURPOSE

The purpose of this evaluation was to assist the Director for Logistics (J-4), the Joint Staff, prepare for his participation in the August tour of the Joint Requirements Oversight Council (JROC) to each of the Unified Commands. As the designated sponsor for the Strategic Mobility Joint Mission Area of the Joint Warfighting Capabilities Assessment (JWCA), the Director, J-4, was responsible for briefing the Unified Commanders on the U.S. Marine Corps Maritime Prepositioning Force Enhancement (MPFE) Program.

GOAL

Our goal for the evaluation was to provide independent information on the ship acquisition program and on the cost and availability of the equipment to be added to each of the three Maritime Prepositioning Force (MPF) squadrons. In addition, we sought to provide an analysis of the priority assigned by the geographic Unified Commanders to the potential force enhancements and the acquisition trade-offs associated with the MPFE Program.

OBJECTIVES

To meet our goal, we identified the following six objectives:

- Objective 1 - Identify the source and rationale for the requirement to expand the capabilities contained in the MPF squadrons.
- Objective 2 - Identify the enhanced capabilities provided by the additional ships and equipment.
- Objective 3 - Identify the equipment to be loaded in the additional ships and assess its availability.
- Objective 4 - Determine the cost of the ships and equipment.
- Objective 5 - Determine/identify the geographic Unified Commanders' warfighting requirements and priorities for additional MPF capabilities and acceptable trade-offs.
- Objective 6 - Collect, evaluate, and consolidate the views of the geographic Unified Commanders on whether the capabilities to be obtained with ships two and three would justify the potential costs and trade-offs involved.

SCOPE

The scope of our evaluation was limited to gathering information on the ships and equipment, and determining the Unified Commanders' prioritization of the MPFE program relative to other acquisition programs affecting their Areas of Responsibility (AORs). We did not set out to validate the

operational requirement for MPFE in each AOR but rather looked at how statements of requirements were documented and promulgated. The assumption was made that the Unified Commanders were in the best position to define the warfighting requirements for their AORs.

In gathering the data required to meet our objectives, particularly in providing the priority assigned to the MPFE by the Unified Commanders and in the way warfighting requirements are identified and promulgated in the various AORs, we encountered questions arising from the processes themselves. While not within the scope of this evaluation, our intention in a follow-on evaluation is to look at the processes used originally to program and budget for MPFE and to offer possible suggestions for improving that process. Coverage of process in this evaluation is therefore limited to those areas where the clarity of data or priorities is affected by the process in place.

METHODOLOGY

We focused our research in two primary areas - documentary and interviews. To increase the effectiveness of the meetings and the interviews, we forwarded an advanced sample of representative questions; developed a standardized format for the meetings; and cross referenced the data obtained.

General Tasking And Warfighting Requirements

The first area of research included documentary guidelines and statements of requirements at the national, departmental, Service and Unified Command level. We reviewed the national and departmental level resources such as the National Military Strategy, the Defense Program Guidance, the Bottom Up Review, the Mobility Requirements Study, and the Joint Strategic Capabilities Plan to identify general tasking provided to the Unified Commanders as a foundation for their requirements. From Service directives and references we established equipment costs and availability and identified if and when the Services, vice the Unified Commanders, were the primary source of program requirements. Finally, documents originated by the Unified Commands, such as Integrated Priority Lists (IPLs), Strategic Concepts, and Training Plans highlighted the Commander in Chief (CINC)-identified warfighting requirements within the AOR and the priorities ascribed to MPF and MPFE.

Meetings Validated Specific Data

Our second area for research consisted of meetings, briefings, and interviews in the National Capital Region (NCR) and in the headquarters of four geographic Unified Commands and a majority of their components. The purpose of that research was to complement our documentary studies and to:

- Obtain a list of equipment to be added to MPF squadrons in conjunction with the MPFE Program.
- Determine the status and availability of the equipment to be added.

- Identify the estimated acquisition costs and the funds required for the operation and maintenance of ships and equipment.
- Identify the processes involved in conducting the JWCA and of the roles and functions of the JROC.
- Determine the priority assigned to the MPFE Program by the geographic Unified Commanders relative to other acquisition programs.

To achieve these purposes we visited the following commands:

*Visits To NCR
Headquarters,
4 Unified And 12
Component
Commands*

National Capital Region
Headquarters, U.S. Marine Corps
Staff of the Chief of Naval Operations
Military Sealift Command
Joint Staff
Naval Supply Systems Command
Naval Bureau of Medicine

U.S. Atlantic Command
Marine Forces Atlantic
Atlantic Fleet

U.S. European Command
Naval Forces Europe
Army Europe
Air Forces Europe
Marine Forces Europe

U.S. Central Command
Naval Forces Central
Marine Forces Central

U.S. Pacific Command
Pacific Fleet
Marine Forces Pacific
Army Pacific
Pacific Air Forces

A complete listing of the individual offices with whose representatives we spoke is at Appendix A.

**Questions
Forwarded In
Advance**

Prior to visiting the commands and activities, we forwarded a list of representative questions to their designated points of contact. Those questions augmented the description of the purpose of our evaluation previously forwarded with our announcement letter. By providing specific questions addressing our primary areas of interest, we hoped to assist the commands visited in determining who should participate in the meetings and discussions. In addition, advance staffing could be accomplished to help gather appropriate data and information and to assist in

formulating command-approved responses to our queries. A copy of the questions forwarded to each command is at Appendix B. One spin-off of forwarding questions in advance of our visits, was an invitation for an office call with the Commander in Chief, U.S. Atlantic Command, to discuss the questions; the role of the Inspector General, Department of Defense (IG, DoD), in addressing the MPFE issue; and the current requirements definition process as seen from a CINC's perspective.

**In-briefings And
Discussions
Standardized**

Upon arrival at each command, we first conducted a general in-briefing during which we explained the role and mission of the Program Evaluation Directorate and the purpose of our evaluation of MPFE. We then solicited general comments from the participants with special emphasis placed on Statements of Requirements, availability of equipment, IPLs, and other areas applicable to the specific activity visited. During the in-briefing and general discussion, specific offices and individuals were identified for follow-on discussions when appropriate. In the case of the Unified and Component Commands, prior to departing, we debriefed the Chief of Staff or the organization's Inspector General on our visit and the outcome of our meetings. We also identified at that time any items requiring future action or additional attention.

**Data Cross
Referenced And
Anomalies Identified**

We categorized the information we received during the meetings, briefings, and interviews using our six objectives as guidelines. We then analyzed and corroborated the information using Service and Unified Command reference documents and directives, the statements of other staffs and organizations, and our own observations. When inconsistencies or conflicting statements surfaced, we referred, whenever possible, to the data or policy statements of the parent or originating organization to resolve the issue. When both the originating source or provider of the equipment and the intended user presented identical information on the status, availability, or cost of the equipment, we considered the information to be accurate. Information on the views or priorities of the Unified Commander was considered valid when provided by the CINC personally; documented in written statements, policies, or directives; or if commonly stated as fact by a wide, cross section of the Commander's staff.

PART II - BACKGROUND

CLOSURE TIMES DRIVE PREPOSITIONING

Ensuring that necessary equipment and personnel arrive in the combat zone at the appropriate time has long been an issue of critical importance. Transporting heavy equipment has been of particular concern. To improve the closure times for arriving forces under a North Atlantic Treaty Organization/Warsaw Pact conflict scenario, the United States implemented a policy of prepositioning. First, the Near Term Prepositioning Force and then the Maritime Prepositioning Force were established afloat while the Prepositioning of Material Configured to Unit Sets (POMCUS) and the Norway prepositioning of U.S. Marine Corps equipment provided land based support. Prepositioning received an extensive test in the Persian Gulf operations during 1990-1991 when the United States responded to the Iraqi seizure of Kuwait.

ENHANCEMENTS TO MPF IDENTIFIED BUT NOT FUNDED

Drawing upon the lessons learned from Operation Desert Shield/Desert Storm and from other operations, exercises and war games, the Marine Corps sought to enhance its MPF capability by prepositioning additional equipment afloat in each MPF squadron. Equipment, sufficient to improve the support for an armor heavy, brigade-equivalent force, was identified and divided into five packages: (1) expeditionary airfield (EAF); (2) fleet hospital; (3) Naval Mobile Construction Battalion (NMCB); (4) Joint Task Force (JTF) headquarters support and Table of Equipment (T/E) restoration; and (5) sustainment. In order to incorporate the additional equipment, one augmenting ship was proposed for inclusion in each MPF squadron. The Marine Corps proposed that funding for the additional ships be incorporated in the Navy Program Objective Memorandum (POM) for fiscal years 1995-2001. The equipment, according to the Marine Corps, already existed in the inventory and no acquisition funding was therefore required. While the concept received support from the Navy, the necessary funds and trade-offs were not identified and the money to support the ship acquisition program was not included in the Navy POM. In reviewing the President's Budget Proposal, the Congress inserted MPFE on its own initiative and authorized up to \$220 million for the program. The appropriation bill provided \$110 million in the 1995 budget to buy the first of the MPFE ships. Navy staff personnel are now seeking to identify the best process to acquire that first ship.

CURRENT ISSUE REGARDS SHIPS TWO AND THREE

While the Navy staff evaluates the options available for acquiring the first of the MPFE ships, the issue now, according to the Director for Logistics, the Joint Staff, centers on the amount of support the Chairman of the Joint Chiefs of Staff

should give to including funds for ships two and three in the POM for fiscal years 1996-2001. The subject was to be addressed in the Strategic Mobility Briefing to be given by the Director for Logistics during the August JROC tour and was to be discussed with the individual Unified Commanders. To support the briefing and subsequent discussion, the Director for Logistics requested that the IG, DoD, identify the equipment involved, validate its availability and cost, and provide the status of the ship acquisition initiatives. The JROC travel schedule required that a "first look" debriefing of our initial findings be provided to the Director for Logistics by August 1, 1995. That briefing took place on July 28, 1995. This report is the written follow-up to the July 28th briefing.

PART III - RESULTS OF THE EVALUATION

OBJECTIVE 1

Identify the source and rationale for the requirement to expand the capabilities contained in the Maritime Prepositioning Force squadrons.

OBSERVATION

Both the Marine Corps and the geographic Unified Commanders have expressed the need for the enhanced capabilities. Differing but complementary reasons have been given to support the requirement.

Dual Source Of Requirements

Our original intent was to determine whether the requirement to enhance the capabilities of the MPF originated with the Marine Corps or with the geographic Unified Commanders. We hoped to determine the nature of the system and whether it was primarily a "push" (i.e., Service generated) requirement or a "pull" (Unified Commander generated) requirement. We found that the requirement was actually expressed by both rather than exclusively by one or the other.

Marine Corps Rationale

The Marine Corps based the requirement primarily on the following four considerations or factors:

- The requirement to incorporate the equipment that, due to space constrictions, could not be included in the original 13 ships of the 3 squadrons. Included in that category were the 500-bed fleet hospitals, the heavy engineering equipment associated with the NMCBs, and the EAF packages.
- The change in the footprint of the embarked equipment as a result of technology and capability upgrades. That included the replacement of the M151 Jeeps with High Mobility, Multipurpose Wheeled Vehicles (HMMWVs), and of the M60 tanks with M1A1s. Although only 30 M1A1 tanks per squadron were originally available to replace the 54 M60 tanks per squadron, restoration of the full tank battalion of 58 M1A1 tanks with its larger footprint is considered by the Marine Corps to be a high priority requirement.
- The requirement to add equipment not originally included as a part of the support package for an armor heavy, brigade-equivalent force but which was now considered necessary given the focus of the Bottom Up Review on Southwest Asia. That category included equipment such as water pumps and well drilling equipment required to support desert operations within the U.S. Central Command's AOR.

- The lessons learned from Operation Desert Shield/Desert Storm, Somalia, and other operations. In many cases the operational commander employed the MPF and then requested augmentation by one or more elements of the enhancement packages, such as the fleet hospital, EAF, or construction equipment. The fact that the MPF and augmenting forces were used in response to the Unified Commanders' requests makes the fourth factor a reflection of CINC and Service dual-sourcing of the requirement.

**Closure Times
Dominate CINC
Rationale**

In our discussions with staffs of four Unified Commands and their Component Commands, the need to improve closure times was consistently used as the rationale for supporting programs such as MPFE; C-17s; and Large, Medium Speed, Roll-On/Roll-Off Ships (LMSRs). The extent, however, to which those programs received emphasis reflected the characteristics of the individual AORs and the threat defined by the planning scenario. For example, the importance attributed to MPF by the U.S. Central Command can be traced to the small number of forward based forces, minimal prepositioning material, the geographic distance to be covered in establishing supply lines, and the proximity of enemy forces to key objectives. In contrast, the European Command, with no major regional contingency (MRC) assigned for planning, more numerous forward based forces, more prepositioned material, modern host nation facilities, and shorter supply lines, ascribes a lower priority to MPF.

**Additional
Contributing
Factors**

Other factors contributing to the requirement for enhanced MPF, according to the Unified and Component Command staffs, were:

- the enabling capabilities provided by the early entry of the support packages such as the EAF and heavy construction equipment
- the improvements in the expeditionary capabilities of the Marine Corps; and,
- the capabilities to offset the downsizing of U.S. active forces and the reduction in their forward basing.

OBJECTIVE 2	Identify the enhanced capabilities provided by the additional ships.
OBSERVATION	<p>The additional ships and equipment will increase the Marine Corps' combat capabilities and the support for its combatant forces at an earlier time than would otherwise be possible. In addition, the early arrival of an expeditionary airfield, Naval Mobile Construction Battalion equipment, and JTF headquarters equipment will provide enabling support for other forces deployed to the area.</p>
MPF Allows Full Combat Capabilities Earlier	<p>The enhanced capabilities obtained in connection with the deployment of the additional ship per MPF squadron flow primarily from the resulting earlier arrival times in theater of the embarked equipment. Estimates given indicate that MPFE could provide an operational expeditionary airfield as early as week 3 vice week 10 or 11 using surge sealift. The improved closure time would facilitate tactical air operations and air reinforcement during the critical early stages of the conflict. Similarly, the fleet hospital would be able to receive, treat, and temporarily hold patients during early combat phases rather than relying on airlifting casualties to facilities in countries outside the combat zone. An enhanced, integral medical capability is particularly critical in locations where host nation facilities are less numerous and less well-equipped. Both MRC planning scenarios occur in nations whose facilities are currently limited.</p>
Tank Restoration Critical	<p>Especially critical during the early combat phases is the battalion of M1A1 tanks. While the restoration of the battalion to full strength is included as part of the enhancement program, the Marine Corps has indicated that the total battalion will be embarked in each MPF squadron whether or not the additional ships are eventually deployed. If the additional ships are not acquired, equipment will be removed from the current force to allow embarkation of the heavy armor capability. While of lower priority than the tanks, the equipment removed will still adversely impact the capabilities and readiness of the forces assigned to fall in on the MPF.</p>
MPF As An Enabling Force	<p>In addition to the enhanced capabilities obtained by the early arrival of the equipment used to increase the strength and effectiveness of the Marine Corps combatants, the enhanced MPF will also serve as an enabling resource for other Services and forces. The expeditionary airfield will facilitate aircraft beddown, refueling/rearming, security, and will serve as a nucleus for other independent base facilities, such as for communications, command and control. NMCB equipment will support all construction projects during the preparation for or initial phases of the conflict. Support equipment for the JTF headquarters, although currently a Marine Corps package only, would be available during the earliest phases to facilitate command and control of joint forces.</p>

The total effect of the enhancement would be to provide greater capability at an earlier point in time for contingency operations. That would further offset the reduced forward presence of U.S. forces by improving their ability to rapidly concentrate mobile, flexible forces at the point required to achieve greatest impact.

OBJECTIVE 3	Identify the equipment to be contained in the additional ships and assess its availability.
--------------------	--

OBSERVATION

The additional equipment to be prepositioned with each MPF squadron includes a 500-bed fleet hospital, an expeditionary airfield package (EAF 2000), engineering equipment to support a NMCB, JTF headquarters support equipment and a T/E restoration package that includes 28 M1A1 tanks, and a sustainment enhancement package. All equipment is in the Navy and the Marine Corps inventories and is available for embarkation. Information on each of the packages is contained below and in Appendices C-F.

500-Bed Fleet Hospital

There are currently 17 fleet hospitals in existence including 3 250-bed, 12 500-bed, and 2 100-bed hospitals. The total number of fleet hospitals will be reduced to 10 500-bed and 2 100-bed hospitals. Ten 500-bed facilities are currently located in six shore storage sites and aboard one MSC contract ship, the SS Strong Virginian. Storage sites with the number of hospitals assigned are:

Okinawa	2
Korea	1
Sasebo, Japan	1
Norway	2
Guam	2
Cheatham Annex	1
SS Strong Virginian (Diego Garcia)	1

*Fleet Hospitals
vs. Hospital Ships*

Fleet hospitals provide Echelon 3 care which includes recovery type surgery and the holding of patients. The two hospital ships in the U.S. inventory are allocated to the Pacific Fleet and provide Echelon 3 care as well as limited Echelon 4 rehabilitative care capabilities. Each hospital ship has 500 real care beds plus an additional 500 beds for holding patients. Current operational concepts call for them to operate in tandem and go off-station to discharge their patients when full. Estimated response time to the U.S. Central Command AOR is C+30. Therefore, although the level of care is somewhat reduced, a fleet hospital employed within the MPF could provide in-zone medical care earlier than the hospital ships and thus be available during the critical opening stages of a contingency when needed.

*MPFE Enhances
Medical
Readiness*

Navy Medical Plans and Policy personnel stated that the MPFE represents a real opportunity to enhance medical readiness and that they are fully prepared to locate three fleet hospitals aboard MPF ships. The 500-bed fleet hospital package includes

approximately 25,000 square feet of rolling stock (trucks, ambulances, trailers, and miscellaneous equipment), and up to 462 International Standards Organization (ISO) containers. Additional information is contained at Appendix C.

**Expeditionary
Airfield**

The Marine Corps currently has the equivalent of 4 1/2 EAF packages (EAF 2000 configuration) available. They are working toward an objective of six in their inventory. They now have enough support equipment for six but the mix of matting, six foot sections and twelve sections, is incorrect. The 4 1/2 sets are located at:

Cheatham Annex, Virginia	2
Port Hueneme, California	1
Okinawa	1.5

*Expeditionary
Airfield Supports
Aviation Combat
Element And
Airlift*

A typical EAF 2000 configuration provides a 3,850 foot by 72 foot runway and parking spaces to support the ground and air operations of up to 78 aircraft that may be assigned as the Marine Corps Aviation Combat Element (ACE) of a MPF brigade-equivalent force. In addition, the EAF 2000 will support operations of strategic airlifters, such as the C-17 for which light load and heavy load tests have already been conducted, as well as C-5, C-141, and C-130 aircraft. Compatibility with other commercial aircraft such as the B-767, B-747, L-1011, and DC-10, will be investigated in the future. The EAF 2000 requires approximately 248 ISO containers. Additional information is contained at Appendix D.

**Naval Mobile
Construction
Battalion
Equipment**

The original plans for MPF called for the prepositioning of equipment to support one NMCB in each MPF squadron. When space constraints necessitated reallocating that equipment from MPF to surge sealift, the equipment was added to the prepositioned war reserve stocks at Port Hueneme, California, and Gulfport, Mississippi, where it still remains available for embarkation in MPF. The SeaBee Programs Manager continues to support strongly the prepositioning of NMCB equipment on MPF as a critical step in improving closure times in theater. Early arrival of engineering forces would assist setup of fleet hospitals, EAFs, and other facilities in the combat zone.

Designed to support up to one battalion of construction personnel (762 people) each package consists of approximately 240 pieces of rolling stock (44,000 square feet) and 148 ISO containers. Additional information is contained in Appendix E.

**Joint Task Force
Headquarters
Support And Table
Of Equipment
Restoration**

The portion of the package designed to support a JTF headquarters consists primarily of general equipment, such as trucks, trailers, generators, and floodlights. High technology and high cost items such as communications equipment and computers, will still arrive by airlift.

*Restoration Of
M1A1 Tank
Battalion*

The second category of equipment in this package, T/E restoration, consists primarily of M1A1 tanks to complete prepositioning one M1A1 tank battalion within each MPF squadron. Adding 28 tanks to the 30 already embarked will create the full strength tank battalion of 58 M1A1 tanks. In line with the original objective of prepositioning equipment to support an armor heavy, brigade-equivalent force in each squadron, the Marine Corps has assigned a high priority to that restoration. Whether or not the additional ship per squadron is deployed, the full complement of M1A1 tanks will be embarked. If all three additional ships of the MPFE Program are not acquired, a sufficient quantity of equipment currently embarked in the squadrons will be off-loaded to make room for the tanks. The resulting delay in the arrival time of that off-loaded equipment will impact the initial capabilities or sustainment of the combatant force.

*Marines Have All
Required Joint
Task Force And
Table Of
Equipment*

The JTF headquarters support package is composed of common inventory items and is available for immediate onload. The additional 84 (3x28) tanks have all been received by the Marine Corps and are currently at the Anniston Army Depot awaiting upgrade. Tanks will be available for embarkation within the ship acquisition time frame. The total package, including the JTF headquarters support portion and the T/E restoration, fills approximately 15 ISO containers and requires 31,000 square feet. Additional information on the total package is found in Appendix F.

Sustainment

Package number five to be included with the enhanced MPF is designed to expand the amount of sustainment already prepositioned in each MPF squadron. The package consists primarily of Meals Ready-to-Eat (MREs), Class IX material (repair parts), and ordnance. Sustainment occupies approximately 185 ISO containers. All items are common stock and are available for embarkation.

OBJECTIVE 4

Determine the costs of ships and equipment.

OBSERVATION

Various options for ship acquisition are still being explored. Specific costs are therefore not yet available. The equipment to be added is currently in the Navy and the Marine Corps inventories and can be embarked without further acquisition costs.

**Three Options
Being Studied**

The range of options being examined for acquisition of the three additional ships envisioned in the MPFE Program includes three primary alternatives. The first option is to select three Ready Reserve Force (RRF) ships which most closely meet Marine Corps requirements (size, speed, etc) and convert them for the MPF mission. The ships, however, that most closely meet Marine Corps requirements are currently filled with Army equipment and are deployed carriers of the Army Afloat War Reserve (AWR) stocks pending deployment of the new LMSRs. The LMSRs have recently been delayed which in turn sets back the availability of the RRF ships. In addition, replacement of the RRF ships as surge sealift would also be an issue and could involve recapitalization costs. However, since the RRF ships are already U.S. government-owned, if availability and potential recapitalization costs are not considered, they could augment the MPF force for conversion costs alone - approximately \$60 million to \$70 million apiece.

The second alternative is to purchase ships similar to the Waterman, Maersk, or AmSea vessels already serving in the MPF. Those ships are being operated under a lease arrangement that has been characterized by the Navy and the Congress as being too expensive for long-term objectives. To buy another Waterman, Maersk, or Amsea vessel could cost as much as \$130 million according to Navy estimates.

*Commercial To
Commercial
Option Favored*

The third option being examined is one that enjoys considerable congressional support. Following the entry of the government into an agreement with a commercial company, that company would negotiate with the shipyards for purchase of a ship and would operate that ship as part of the contract for an initial fixed period. This option would keep the government out of direct negotiations and push a commercial to commercial arrangement. Cost estimates by the Navy indicate that the three ships could possibly be acquired for less than \$100 million per ship using that type of approach.

*Operations And
Maintenance
Funding Still An
Issue*

As stated above, these options are still being examined and no Request for Proposal has been published or distributed. An additional factor to be considered is that the \$110 million appropriated by the Congress in the fiscal year 1995 budget is for acquisition costs and does not include funding for Operations and Maintenance (O&M) for the enhancement ship or ships. Current

costs average approximately \$10 million to \$11 million per ship per year. The Navy is now funded for and is paying the O&M for the 13 ships in the three MPF squadrons. No Navy O&M funds for MPFE are in the current budget. As a result, the Marine Corps has said it will cover the O&M funds for the three MPFE ships until Navy programming and budgeting catch up.

*Indirect Costs Not
A Factor*

The Military Sealift Command (MSC) currently schedules and operates the MPF ships, the Marine Aviation Logistics Support ships (TAVBs), the Army's AWR-3 force, and the Air Force's ordnance carriers. According to the MSC, the indirect costs associated with the extra ship in each squadron, such as operating requirements, restrictions, anchorage/pier availability, and port access, would not be a significant factor. Finally, any additional costs involved in providing security for the force from piracy, terrorism, etc., are the responsibility of the CINC within whose Area of Responsibility the MPF ships are operating.

As noted in connection with objective three, all equipment planned for embarkation in MPFE is currently in the Navy or Marine Corps inventories. The only costs anticipated other than normal operations and maintenance would be replacement costs if the political decision is made to leave equipment behind, if and when employed. For example, the replacement cost for a 500-bed fleet hospital is approximately \$35 million. That cost, and how the capability will be reconstituted, should be considered when deciding whether or not to backload the equipment.

OBJECTIVE 5

Determine/identify the geographic Unified Commanders' warfighting requirements and priorities for additional MPF capabilities and acceptable trade-offs.

OBSERVATION

The four geographic Unified Commands with whom we spoke support the MPFE Program as a means to improve force closure times. The priority given MPFE is dependent on the specific characteristics and requirements of each AOR. Inter-Service acquisition trade-offs could not be addressed by the geographic Unified Commanders.

Diversity Of Requirements

We were only able to meet partially the objective as originally written. Instead of a relatively uniform strategic environment with many common requirements, we found the setting today to be driven more by regional factors and considerations than was true during the days of potential global conflict between super powers. The uniqueness of the AORs, particularly in terms of their role in planning scenarios (MRC/non-MRC assigned in the Bottom Up Review), forward presence of U.S. forces, current prepositioning of equipment, and the geographic proximity of the potential enemy to key objectives, was reflected in the statements of requirements as promulgated by the geographic Unified Commanders. This diversity in regional characteristics and requirements makes identification of common CINC needs more difficult and less uniform.

Approaches To IPLs Vary

A second difficulty encountered in identifying clear, sharply defined statements of warfighting requirements was the lack of uniformity in the approaches used by the Unified Commands to develop their IPLs. Determining the extent of support by the CINCs for a particular program or resource using the IPLs as indicators requires a significant degree of interpretation and discussion with the individual staffs. Primary variations encountered include a programmatic/non-programmatic approach, (i.e., identifying specific programs or systems as necessary to meet requirements), inclusion or exclusion of programs considered to be on track, and the restrictiveness or openness in number of items included. In seeking information on MPFE, for example, several factors could influence whether it was listed on a CINC's IPL. Those include whether or not the MPFE was folded into MPF or even prepositioning in general; if MPFE was considered to be on track and therefore not necessary to list; if MPFE was considered too small a program to warrant inclusion; or if MPFE fell out as number 11 in an IPL restricted to 10 items.

Unified Command Focus On Today's Operational Readiness

A third factor in meeting the original objective was the appropriateness or competency of the Unified Commanders or their staffs to address inter-Service trade-offs or acquisition priorities. One Unified Commander stated that the primary focus of the Unified Commander must be on today's operational readiness. In pursuing that focus the CINCs are more concerned

with allocation than acquisition issues. The Services and the Joint Staff need to be able to look down stream and develop Service programs to contribute to future operational capabilities.

**CINCs Support
MPFE**

Within the limitations imposed by these three factors we concluded that the four geographic Unified Commands that we visited supported the concept of MPFE and the forward positioning of material. In our analysis of the IPLs we observed that there was general consensus on the significant potential of prepositioning to reduce closure times and offset the adverse impacts of downsizing and the associated reduction in the forward presence of U.S. forces. Particularly in a setting of constrained strategic airlift, maritime prepositioning provides flexibility in both the entry point and composition of force/support packages to be used.

*Priority Of
Program
Determined By
AOR*

While general consensus existed on the capabilities offered by MPFE, the relative importance of the program varied from CINC to CINC depending upon the strategic setting and requirements of the AOR. Primary determinants included whether the AOR was assigned an MRC for planning, the amount and type of U.S. forward presence, the amount and location of prepositioning stocks, and the proximity of the potential enemy to key objectives.

**MPF Employment
Concepts Vary**

In addition to the variation in the relative importance ascribed to MPFE, there was also a variance of opinion between the staffs on how MPF and MPFE should be employed. Some view MPF as a unified warfighting asset whose employment should be limited to supporting an armor heavy, brigade-equivalent combat force. Others see MPF as a valuable tool in successfully conducting military Operations Other Than War (OOTW). The two extremes were brought together by one CINC when he said that the CINCs need to be able to employ MPF within their AORs to best meet their individual requirements and not be inappropriately constrained by Service doctrine or policies.

*CINC Involvement
In MPF Planning*

Recognizing that, at least according to one Unified Commander, it will be the responsibility of the individual CINC to determine how and when MPF should be employed in his specific AOR, the planning process for MPF composition and loading might warrant reexamination. Will the load plan be discussed with the CINC to whom the MPF squadron is allocated since the composition and load plan will directly affect the ability of the CINC to employ the MPF? A second question that might be addressed concerns how the impact of reconstitution in terms of dollars and period of reduced readiness can be minimized should MPF be employed especially for OOTW.

OBJECTIVE 6

Collect, evaluate, and consolidate the conclusions of the geographic Unified Commanders on whether the capabilities to be obtained with ships two and three would justify the potential costs and trade-offs involved.

OBSERVATION

The geographic Unified Commanders focus primarily on required capabilities and allocation issues to improve current operational readiness. They do not assess or justify the potential trade-offs or costs of Service programs to meet operational requirements. We were, therefore, unable to fulfill this objective.

**Acquisition Costs
And Trade-Offs
Not CINC
Responsibility**

The Unified Commanders and the staffs with whom we spoke are focused on the warfighting requirements and allocation of resources to meet the needs of their individual AORs, not the Department of Defense (DoD) overall. Given that focus and the emphasis on current operational readiness, they lack the global perspective from which potential acquisition costs or inter-Service trade-offs should be evaluated. The consensus of the staffs was that type of process needs to take place within the Washington DoD arena rather than within the staffs of the Unified Commanders.

PART IV - SUMMARY

The original purpose of the evaluation was to assist the Director for Logistics, the Joint Staff, prepare for the August 1995 JROC tour by providing information on the MPFE Program. With that purpose as a guideline, we can summarize our observations into four general conclusions.

Ship Acquisition Work Ongoing

- Work is still ongoing in selecting the best means to acquire the first of the augmenting MPFE ships. Various options have been identified, the Mission Needs Statement has been signed, and the Operational Requirements Document is nearing completion; but a firm acquisition cost has not yet been determined. A figure is therefore not yet available for use in evaluating the acquisition of ships two and three.

Equipment Available Without Additional Costs

- The equipment for the five packages that will be added to each MPF Squadron has been identified, is in current Navy and Marine Corps inventories, involves no significant acquisition costs, and is available for embarkation.

Unified Commanders Support Mpfe

- Our analysis of the Unified Commanders' IPLs and discussions with four geographic Unified Command staffs indicate that the geographic Unified Commanders support the concept of maritime prepositioning and the role it can play in improving force closure times. The actual priority assigned to MPFE and, in general, maritime prepositioning reflects the nature of the geographic AOR and the specific requirements of the individual Unified Commander.

Concepts Of Employment Vary

- Finally, considerable variation exists between staffs both within and across AORs about how the MPF should be employed. Some would reserve it as strictly a combat resource to be used in support of the combat operation of a Marine Corps brigade-equivalent force while others view it as a valuable resource to address military OOTW as well. We subscribe to the view that the CINC, having considered the advantages and disadvantages of employing MPF, should have the flexibility to choose from the various employment options without being limited inappropriately by Service plans or policies. In that way, the capabilities provided by MPF, particularly when improved by the MPFE Program, could be used to meet the specific warfighting requirements of each AOR.

**APPENDIX A
ACTIVITIES CONTACTED OR VISITED**

JOINT STAFF	Director for Logistics, The Joint Staff Plans & Resources, Mobility Division
MILITARY SEALIFT COMMAND	Inspector General Deputy Inspector General Director Prepositioning and Ship Introduction Directorate (N-321) Central Technical Activity Head, Strategic Sealift Branch (N-1042)
BUREAU OF NAVAL MEDICINE	BUMED 27
NAVY SUPPLY SYSTEMS COMMAND	Deputy Program Manager for Fleet Hospital Program
HEADQUARTERS, U.S. MARINE CORPS	Program Manager, MPFE Maintenance Manager, MPFE
MARINE CORPS FORCES ATLANTIC	MARFORLANT, Camp Lejeune NC
COMMANDER IN CHIEF ATLANTIC FLEET	Inspector General N84A Fleet Marine Rep N332C N411A2 N753C MFL LN ELEM G-4/OPS N413C N4130

**U.S. ATLANTIC
COMMAND**

Commander in Chief

J-5

J-8

J-4

J-5

J-32

**U.S.
TRANSPORTATION
COMMAND**

TRANSCOM REP

Inspector General

**COMMANDER IN
CHIEF U.S. NAVAL
FORCES EUROPE**

Chief of Staff

N-0221 N313

N42R N421

N51 N52 N53

N71 N81

MSCEUR OPS

**U.S. EUROPEAN
COMMAND**

J4

J5

MSC

J3

**MARINE CORPS
FORCES EUROPE**

Chief of Staff

G3

G4

G5

U.S. ARMY EUROPE	ADCSLOG Plans, OPS
U.S. AIR FORCE EUROPE	Ops Deputy XP Log Plans & Programs 32nd Air Ops
U.S. CENTRAL COMMAND	J5 Warplans J2 Plans J3 PP J6 PC SG-P J4/7 Inspector General MARCENT Liaison NAVCENT Deputy IG Medical Plans Resource Officer/PBBS Corrdinator
PACIFIC COMMAND	J522 Requirements & Programs J072 J0531
COMMANDER IN CHIEF PACIFIC FLEET	N4 N83 N317

**MARINE CORPS
FORCES PACIFIC**

Comptroller

G4

G5

Requirements & Programs Branch

**PACIFIC AIR
FORCES**

DOXO

XPP

**U.S. ARMY
PACIFIC**

DCSLOG, (DRIS)

DCSLOG, (APLG-PI)

DCSOPS, (APOP-PL) Program & Budget Branch

DCSOPS, (APOP-PL) Contingency Plans Branch

DCSRM

IRO

APPENDIX B DATA CALL QUESTIONS

THEATER JOINT WARFIGHTING REQUIREMENTS DETERMINATION

- I. What tools does the Unified Commander use to identify Joint Warfighting Requirements (JWR)?
 - A. What staff elements play a part in the JWR process?
 - B. What role do the Component Commanders play?
 - C. How are the CINCs' requirements incorporated into the PPBS process?
 1. At what point in the process do these inputs occur?
 - D. What are the methods used to convey the CINCs' JWR to the Service Chiefs?
 1. How are trade offs identified between the Services?
 2. How do CINCs learn about programs being considered or developed by the Services?
 3. How and where do the CINCs comment on individual Service programs that affect their AORs?
 - E. What discussion takes place between Unified Commanders on theater warfighting requirements and common priorities?
- II. How does the Goldwater-Nichols Act define the CINC's responsibilities in the Joint Warfighting Requirements determination process?
 - A. How are the Goldwater-Nichols responsibilities implemented in theater?
 - B. What changes to the process and procedures would make the CINC's responsibilities under Goldwater-Nichols easier to carry out?
- III. What other problem areas are there in the current process to identify and communicate joint warfighting requirements?
- IV. How do Operations Other Than War (OOTW) enter into the warfighting requirements determination process?

MPFE SPECIFIC ISSUES

- I. How did the Combatant Commanders interact in the processes that resulted in the MPFE (if at all)?
 - A. How did the Unified Commander learn about the MPFE?
 - B. Was a joint warfighting requirement identified that prompted the development of the MPFE?
 1. ie: was a CINC "pull" system utilized?
 2. is a CINC "pull" system feasible?
 3. is a CINC "pull" system desirable?
 - C. How were the specific packages or component parts of the MPFE selected?
 - D. What process was used to determine the desired arrival times in theater of the equipment contained in the MPFE?
 - E. If there are capability shortfalls in the MPFE how were they identified?
- II. What capabilities are contained in the MPFE that benefit the Combatant Commanders?
 - A. Is the Unified Commander familiar with the equipment included in the MPFE and of the capabilities the equipment will provide?
 - B. Are the CINCs happy with the MPFE packages as written?
 1. would they add or delete anything?
 2. are all the separate packages that comprise the MPFE of equal priority in the CINC's eyes?
 - C. What is the status of the Expeditionary Airfield packages?
 1. who currently owns them? Services? Unified CINCs?
 2. are they available for incorporation into the MPFE?
 - D. What are the shortfalls in capabilities that the MPFE will resolve?
 1. are additional capabilities/resources needed in order to utilize the MPFE?
 - E. Are the required capabilities sufficient to be considered force multipliers?
 1. Is the MPF a force multiplier?
 - F. Does the MPFE duplicate capabilities provided by other programs or are the capabilities unique?

- III. How do the Combatant Commanders envision using the MPF with the enhanced capability?
 - A. How would the utilization of the MPFE be executed?
 - B. What complementary actions, if any, are required in theater to achieve the full capabilities offered by MPFE?
 - C. Is the enhanced MPF critical to meeting MRC/LRC requirements?
 - D. Is the use of the capabilities provided by the MPFE anticipated for OOTW?
- IV. Considering the overall importance and priority of the MPFE, what trade-offs with other capabilities or programs are the Combatant Commanders willing to make in order to get this capability?
 - A. How would the priority of the MPFE program be determined relative to other programs impacting the AOR?
 - B. What type of trade-offs in acquisition (\$120M) and O&M (\$11M/year) would the Combatant Commanders consider acceptable to obtain MPFE in theater.
 - C. What alternatives exist to the MPFE?
- V. From the perspective of host nation relations, are there political advantages or disadvantages in having the capabilities provided in theater by the MPFE?
 - A. Does the MPFE simplify host nation support?
 - B. Would the host nation support/nonsupport restrict use of the MPFE as envisioned by the Combatant Commander?

APPENDIX C FLEET HOSPITAL PROGRAM

The overall mission of the Fleet Hospital Program has been met by the seventeen (17) shore based, prepositioned, modular, rapidly erectable and essentially self-sustaining medical and surgical facilities which make up the approved program. Each hospital is designed and outfitted to be assembled and operational in five (5) to ten (10) days by the assigned staff. The staff is deployed on a time-phased schedule in three (3) echelons: Air Detachment, Advanced Party and Main Body. Each echelon has a specific responsibility in an appropriate hospital assembly sequence. Upon activation, Fleet Hospitals will be provided with sixty (60) days of supplies with the exception of POL, potable water and blood, which the FLTCINC must provide.

GENERIC FLEET HOSPITAL STATISTICS

	100 Bed Hospital 13.3 Acres	250 Bed CBTZ 22 Acres	500 Bed CBTZ 28 Acres	500 Bed COMMZ Site Specific
Site Required:				
Care Capabilities:				
Average Daily Admission	16-32	40	80	60
Average Daily Operative Procedures	14-18	27	54	30
Average Daily Specialty Clinical Care	39-78	39	78	166
Staff:				
Medical	342	464	719	848
Other	85	155	222	315
Total	427	619	941	1163
Structures:				
ISO Hardwall Shelters 1:1	2	2	2	2
ISO Expandable Tactical Shelter				
2:1	4	6	7	8
3:1	4	5	6	6
ISO Sanitation System Containers	36	66	104	122
ISO Hazardous Material Containers	2	7	7	7
ISO Refrigerated Containers	2	4	5	5
ISO Shipping Containers - Gen. Cargo	150	221	350	400
ISO Fuel Storage Tanks* (6-CONS 20'x8'x5")	2	5	7	7
TEMPER Tent Sections (8'L x 20'W)	117	222	356	467
General Purpose Tents (18' x 52')	50	66	92	110
Maintenance Tents (20' x 64')	4	5	5	6
Circus Tents (40' x 80')	1	2	2	2
Vehicles	21	74	89	115
Generators, 100 KW	10	21	24	50
Radio Communications:				
1:1 ISO Communication Van	1	1	1	1
Teletype AN/UGC-143(V)	1	1	1	1
VHF Transceiver AN/GRC-160	10	14	24	22
Remote Control Group AN/GRA-39B	6	6	6	6
UHF Transceiver AN/GRC-171A	1	1	1	1
HF/UHF Transceiver AN/URC-94	6	6	6	6

CBTZ = Combat Zone

COMMZ = Communication Zone

SECTION 4.0

Echelon Responsibilities

4.1 Air Detachment

4.1.1 Scope

This Section includes the responsibilities of the air detachment, a detailed task list, composition tables of personnel and equipment, and a proposed organizational chart.

A. Deployment

Deploying an air detachment is similar to deploying a Naval Mobile Construction Battalion or a Marine Corps unit. They meet at a marshaling point, travel to an intermediate point (possibly by air) where they link up with their equipment. Then, moving to the operational site using organic vehicles, they begin their tasks. Details of the deployment process are highly variable depending on the: location of individuals comprising the air detachment, storage site location, operational site, support of operational plan, priority of need, and transportation assets available.

B. Organization

Organization must be simple and flexible. Three sections are recommended: headquarters, public works, and receiving and marshaling. Public works is headed by the Facilities Management Officer and includes a survey team, maintenance team, and site survey team. Receiving and marshaling is headed by the Chief Storekeeper with a senior Equipment Operator as marshaling yard boss. Staffing levels of the sections are flexible and are dependent on immediate needs.

C. Time

The air detachment has four days to perform its tasks. This assumes that personnel and material are both available at the operational site at day N-

10. It also assumes that site preparation has been completed by a Naval Construction Force Unit or Marine Corps Engineer unit.

4.1.2 Responsibilities

The Primary responsibilities of the air detachment are to ensure site layout is accomplished, begin liaison with local supporting activities, and begin erecting tents.

A. Layout

Survey and stake out the site perimeter, roads, tents, and other shelters. Identify container marshaling yards, and vehicle parking areas. During the site layout survey, any problems with site preparation will be identified. Aggressive action may be needed to resolve these problems. Use and adapt the conceptual layouts of the Assembly drawings to local conditions.

B. Local Liaison

Begin liaison with local supporting activities. Fuel and potable water sources must be identified. Local food sources, and Disposal sites for waste water and trash must be located. Communication assets must be integrated into the local message center, radio nets, and telephone systems. The command element will begin liaison with appropriate tactical and operational commanders supported by the hospital.

C. Berthing

Set up berthing and office spaces for the air detachment and the advance party using general purpose (large) tents.

4.1.3 Air Detachment Task List

A. All hands

As noted earlier, "assembly" includes five steps: gathering personnel, unstuffing containers, erecting structures, installing utilities, and setting equipment and supplies into place ready for use.

1. Liaison with counterparts from supporting and supported activities.
2. Identify any local customs, laws, regulations, or other conditions physical or nonphysical that could affect the operation of the hospital.
3. Erect tents for air detachment berthing and office space and install limited utilities. These tents are spares, and are not used in other berthing.
4. Time permitting, begin tasks assigned to advance party.
5. Prepare to assist other sections in response to changing work loads.

B. Air Support Operations

1. Become familiar with the tactical situation and the role of the fleet hospital in supporting the operations plan.
2. Become familiar with the location of friendly and enemy units. Investigate the possibility of terrorist and guerrilla activity.
3. Master-Ar-Arms accept custody of organic weapons and establish local weapons issue policies. Provide for interim weapon storage and issue.
4. Mess specialist identify local sources and types of perishable food.
5. Preventive Medicine Technician. conduct vector control survey. Test the potable water source. Provide first aid for air detachment personnel.
6. Telephone switchboard technician identify telephone system entry points, and local protocols.
7. Comm Office determine comm nets, location of message centers, and location of crypto.

C. Materiel Management

1. Materiel Management Officer accept custody of all materiel. Establish local materiel issue and accountability procedures.
2. Supply Corps Officer liaison with FLTCINC to identify source of POL and other items (that can be procured locally). Deliver requisitions for initial requirements and establish POC's for normal supply.
3. Receiving and Marshaling section and Marshaling Yard Boss (senior Equipment Operator) identify container marshaling areas, access roads, and traffic patterns to facilitate receipt of advance party and main body equipment. Prepare and operate rough terrain container handlers and crane. Offload arriving trucks and spot CESE and containers.

D. Public Works

1. Assistant Facilities Management Officer:
 - a) Identify potable water sources. Establish primary and secondary supply routes.
 - b) Locate waste water and trash disposal points. Establish primary and secondary supply routes.
 - c) Identify primary and secondary ambulance routes from anticipated casualty marshaling points.

- d) Identify depot level maintenance sources, and associated administrative requirements.
 - e) Designate helicopter landing pad.
 - f) Establish feasibility of local surface disposal of "grey water".
 - g) Provide for local security of camp and materiel.
2. Survey Team.
- a) Ensure that the site has been properly graded and prepared.
 - b) Adapt the conceptual drawings of the Assembly Plan Drawing Set to the local conditions.
 - c) Establish base lines and bench marks in accordance with locally modified Assembly Drawings.
 - d) Stake corners of all tents and permanently located ISO containers and ISO shelters
 - e) Identify work areas for functional area assembly, including work areas for TEMPER tent wing erection.
 - f) Identify internal roads, entry points, and parking areas.
3. Transportation Section.
- a) Establish a full vehicle maintenance and repair facility.
 - b) Identify a CESE parking area.
 - c) Depreserve vehicles.
 - 1) Depreservation will be in accordance with NAVFAC-P434. Each vehicle will require approximately one-half man-day.

NOTE: Preservative brake fluid, oil, and transmission fluids may be used until normal replacement intervals.

- 2) Activate dry-charged batteries. Add electrolyte and charge for 10-15 minutes.
- 3) Fill fuel tanks.
- 4) Tighten and adjust belts.
- 5) Untape air intake and exhaust.

6) Remove any protective coverings, especially from glass.

7) Install tarpaulins, mirrors, and wiper blades.

4. Maintenance Section

a) Establish interim maintenance shops

5. Preparation Section

a) Assemble berthing tents for the advance party (augment from other sections as necessary).

b) Prepare to expand into food service, and troop housing utility teams during advance party phase.

4.1.4 Composition Tables

Table 1 Air Detachment Composition

Corp/Rate	Rank	NOB/NEC	T/O	Title
CEC (PWO)	O3	4210	1	Detachment OIC/Facilities
MSC (MMO)	O3	?	1	Management Officer
Line (COMM)	O2	9510	1	Communications Officer
SC	O4	1918	1	Supply Officer
UC	E9	0000	1	Assist. FMO
BU	E6,E4(3)	0000	4	Builder
BU	E6	5907	1	Adv. Builder
CE	E8, E6	0000	2	Construct. Electrician
CE	E6	5632	1	Power Plant Tech
CE	E6	5635	1	Adv. Construct. Electrician
CE	E5	5642	1	Telephone Switchboard
CM	E6(2), E4(2)	0000	4	Construct. Mechanic
CM	E5	5804	1	Diesel Mechanic
CM	E6	5805	1	Adv. Construct. Mechanic
EA	E6(2)	5503	2	Adv. Engineering Aide
EN	E6	4317	1	Diesel Engineman
EO	E7,E5(2),E4, E3(2)	0000	6	Equipment Operator
EO	E6	5710	1	Adv. Equipment Operator
HM	E6	8425	1	Independent Duty Corpsman
HM	E6	8432	1	Prevent. Medicine Tech
MA	E7	0000	1	Master-At-Arms
MS	E7	3529	1	Mess Supervisor
SK	E7	0000	1	Storekeeper
UT	E6	6105	1	Adv. Utilitiesman
GMG	E6	0812	1	Gunners Mate Guns
Total:			38	

Table1 Summary

Corps/Rate	Total	Grade/Rank	Total
CEC	1	O4	1
MSC	1	O3	2
SC	1	O2	1
Line	1	E9	1
BU	5	E8	1
CE	5	E7	4

Table 1 Summary

Corps/Rate	Total	Grade/Rank	Total
CM	6	E6	16
EA	2	E5	4
EN	1	E4	6
EO	7	E3	2
HM	2	Note: Best data available as of Dec 92. Cells with? will be identified later.	
MA	1		
MS	1		
SK	1		
UC	1		
UT	1		
GMG	1		

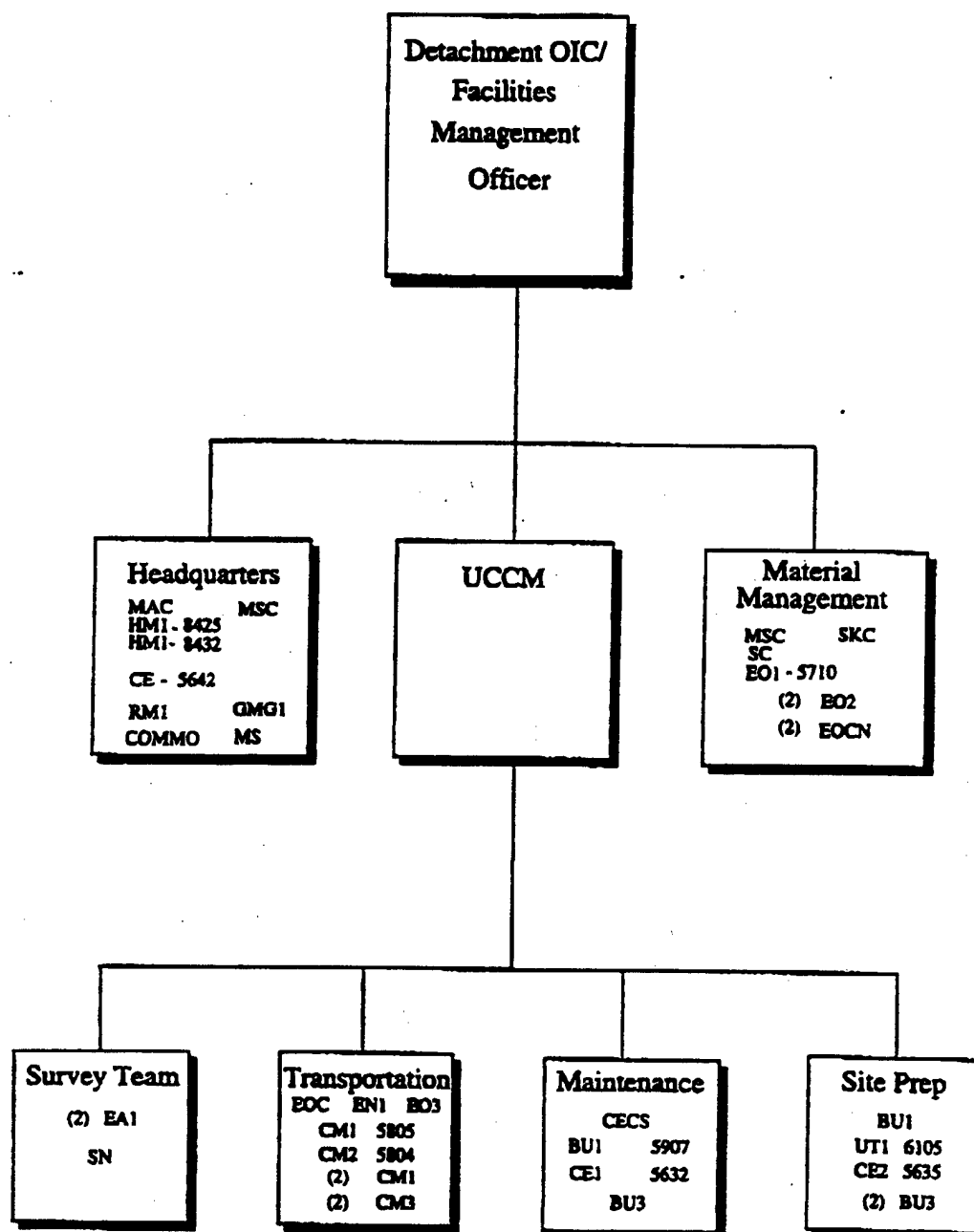
Table 2: AIR DETACHMENT CIVIL ENGINEERING SUPPORT EQUIPMENT

DESCRIPTION	U/I	QUANT
TRUCK, CARGO, COMM	EA	1
TRUCK, CARGO, 1-1/4 TON	EA	2
TRUCK, TRACTOR, 15 TON	EA	1
TRAILER, ISO, 40 FT	EA	1
TRUCK, DUMP, 5 TON	EA	1
TRUCK, CARGO, 5 TON	EA	2
TRUCK, UTILITY 3/4 TON	EA	1
TRAILER, CARGO, 3/4 TON	EA	2
TRAILER, TANK, 400 GAL	EA	1
LOADER, FRONT END W/FORKS	EA	1
CRANE, WHEELED, 15 TON	EA	1
GENERATOR, 10 KW	EA	2
FORKLIFT, R/T 4K	EA	1

Table 3: Hospital Vehicle Diesel Fuel Requirements

Estimated requirements to fuel all vehicles:	
250 bed combat zone	3000 gals
500 bed combat zone	4000 gals
500 bed communication zone	4000 gals

4.1.5 Organizational Chart: Air Detachment



4.2 Advance Party

4.2.1 Scope

The advance party consists of 148 personnel and augments the air detachment, resulting in a total of 184 personnel. This Section includes the responsibilities of the Advanced Party, a detailed task list, and composition tables of personnel and equipment.

A. Deployment

The advance party meets at a marshaling point, travels to the operational site, and begins its tasks. Details on the deployment process are highly variable depending on the location of the individuals in the advance party, operational site, priority of need, and transportation assets available. The air materiel should arrive at least two days before the advance party. The combat zone hospitals will be scenario dependent. The CINC has the option of combining echelons (i.e. air detachment and advance party). This would require staging of applicable containers and shelters requiring access during material phases 1-8, (see Section 1.0, figure 1-2). Certain tasks, such as the assembly of troop berthing, could be accomplished while the air detachment is completing the site layout requirements.

B. Organization

Advance party organization must be simple and flexible. Five departments are recommended: headquarters, medical, materiel management, food service, and public works. Headquarters includes administration, preventive medicine, communications, and security sections. The medical department, headed by the Emergency Medicine Physician, includes the medical technicians. Materiel management, headed by a Medical Service Corps Officer, includes a receiving and marshalling section, an operations section and a medical repair section. Food service department, headed by a Medical Service Corps Officer, includes the mess specialists. The public works department, headed by the Facilities Management Officer, includes the survey team, transportation, maintenance and troop housing sections, and a food service utility team. Staffing levels may fluctuate with changes in workload, primarily by shifting general duty hospital corpsmen and seamen between departments and sections. The proposed organizational chart may require modification to match actual grades and skills of personnel assigned to the advance party.

C. Time

The advance party has four days to perform its tasks. This assumes that personnel and material arrive at the operational site according to schedule. It also assumes that site preparation has been completed, and that the air detachment has completed its tasks.

4.2.2 Responsibilities

The advance party augments the air detachment and prepares for the arrival of the main body. They assemble the infrastructure necessary for hospital operation and staff personnel support.

A. Public Works

The advance party assembles the public works functional area. This area includes various maintenance shops that provide the tools and equipment essential to the assembly process. It also includes spare parts and other materiel to repair any damage incurred during transportation or storage. Additionally, it provides structures to conduct maintenance and repair activities.

B. Administration

The advance party will erect the administration wing of the hospital. This functional area provides the Commanding Officer with the administrative tools needed to accomplish his duties. These tools include the technical library, paper, pens, forms, and other material, as well as office space, desks, and chairs. The communications shelter provides contact with supported and supporting activities and internal telephones. The medical repair shelter provides the tools and equipment the biomedical equipment repair technicians need to activate and repair the medical equipment.

C. Troop Housing

The advance party will erect all remaining troop housing. During the first few days of the deployment, a two shift, 24 hour day, seven (7) day week may be required. Early erection of troop housing is especially important in adverse climates where protection of personnel becomes critical.

D. Food Service

The Advance Party will erect the Food Service area. Early mess hall availability is critical because hot meals are a significant morale factor.

E. Supply Administration/Storage

The Advance Party will erect the supply administration tents as well as the environmental storage/warehouse tents to allow strict accountability of the 60-day supply of bulk material.

F. Laundry

The Advance Party's will erect one complete laundry unit plus all associated equipment to ensure proper operation. The remaining laundry units will be installed by the Main Body.

4.2.3 Advance Party Task List

A. Headquarters Tasks:

1. All hands assemble administration wing to include the communications shelter, weapons and forms container, and the medical repair shelter.
2. Administration begins normal operations, prepares for the arrival of the main body, and begins detailing enlisted staff of main body.
3. Communications receives and takes custody of communication security equipment, begins normal communications duties, and establishes telephone system to the base support functions.
4. Security provides internal security for the entire compound.

B. Food Service Tasks:

1. Assemble mess hall including dining area and kitchen. Begin serving hot meals at earliest moment.
2. Provide interim rations (Meal-Ready-To-Eat (MREs)) for all hands.
3. Procure perishable items including fresh fruits, vegetables and dairy products.

C. Medical Tasks:

1. Gather local medical intelligence including anticipated casualties based on the operational plan, and the tactical and strategic situation. Contact Theater Commander's civil affairs organization for additional manpower resources (e.g. translators, laborers, etc.). Continue liaison with supported and supporting units.
2. Review Host Nation Support Agreements, establish capability of local military and civilian medical facilities, and availability of alternate sources of medical gases and supplies. Prepare specific protocols to treat indigenous personnel and refugees.
3. Provide first aid and sick call.
4. Conduct an environmental health survey. Ensure proper chlorination of all potable water storage and distribution systems, and inspect the waste water and trash disposal sites.

D. Materiel Management Tasks:

1. Identify potential alternative sources of resupply.
2. Receiving and Marshalling move containers to work sites to support assembly operations. Prepare to accept ISO containers containing main body materiel. Prepare container layouts for ready issue point. Use shipping containers for storage of bulk supplies.
3. Operations
 - a) Assemble supply administration, environmental storage, and warehouse tents and establish internal materiel distribution systems.
 - b) Ensure that resupply materials have been ordered using the hospital microcomputer system produce these requisitions.
 - c) Position consumable bulk supplies into environmental/warehouse storage tents and establish local procedures for issuing accountable materiel.
 - d) Take custody of master keys for shipping containers. Issue supplies as needed to support daily operations.
4. Medical repair

Install and begin operation of the oxygen generator. The fleet hospitals are shipped with empty oxygen cylinders which must be filled before the hospital is operational. A three-day supply of charged cylinders must be available on N-Day.

E. Public Works Tasks:

1. Facilities Management Officer (FMO) and Assistant FMO.
 - a) Appoint Safety Officer. Conduct safety classes and establish safety procedures. Monitor safety in all work areas.
 - b) Appoint Hazardous Materiel Officer, and identify potential disposal sites for hazardous waste.
 - c) Provide technical assistance to other sections as required.
 - d) Begin spotting of ISO shelters in medical facility.
 - e) Install one laundry unit and associated equipment.
2. Transportation.
 - a) Assemble fire station. Provide interim fire protection crews.

- b) Assemble vehicle maintenance shop. Continue and complete depreservation of vehicles.
- c) Establish motor pool with drivers.
- 3. Maintenance Section.
 - a) Assemble public works maintenance shops including generator, air conditioning, electrical, and builder shops. Erect fuel distribution point.
 - b) Prepare pads for ISO jacks, if required by soil conditions.
- 4. Troop Housing and Food Service Utility Teams.
 - a) Install generators and electrical distribution systems.
 - b) Assemble potable and waste water storage and distribution systems. Install sump pumps with waste water systems.
 - c) Superchlorinate potable water systems, and flush.
 - d) Food Service: Build and install grease trap.
- 5. Troop Housing Section.
 - a) Erect troop housing for main body.
 - b) Provide assistance to Headquarters and Food Service departments in erecting TEMPER wings, as required.
 - c) Prepare to expand into TEMPER wing erection teams upon arrival of main body.
 - d) Tent teams: Erect General Purpose (Large) berthing tents. Align and stake tents.
 - e) Unstuffing teams: Unstuff containers, remove packing and packaging materiel, stage materiel for tent teams, return packing and packaging materiel to containers.
 - f) Survey team: Prepare "as built" drawing of site.

4.2.4 Composition Tables

Table 1 Advance Party Composition
(500 Bed Cbtz)

Corp/Rate	Rank	NEC/ NOBC	T/O	Title
MSC (XO)	O5	9436	1	OIC Advance Party
MC (GMO)	O5	0108	1	Emergency Medicine
MSC (EHO)	O3	0861	1	Environmental Health
MSC (OMS)	O3	0820	1	Operating Management Services Officer
MSC (FSO)	O3	0876	1	Food Service
CEC (PWO)	O2	4255	1	Facilities Management Officer
Line (PAO)	O3	2412	1	Public Affairs Officer
NC	?	?	1	Nurse Corps Officer
HM (CMC)	E9	0000	1	Command Master Chief
CE	E6, E4 (8)	0000	9	Construct. Electrician
CM	E4 (7)	0000	7	Construct. Mechanic
EO	E6 (4), E4 (10)	0000	14	Equipment Operator
HM	E3 (23)	0000	23	Hospitalman
HM	E6 (2)	8425	2	Independent Duty Corpsman
HM	E7	8452	1	X-Ray Tech
HM	E6 (2), E5 (2)	8478	4	BioMedical Equipment Tech
HM	E5	8483	1	Operating Room Tech
HM	E7	8506	1	Labratory Tech
JO	E6	0000	1	Journalist
MA	E6 (2), E5 (3)	0000	5	Master-At-Arms
MS	E6 (2), E5 (4), E3 (7)	0000	13	Mess Specialist
PC	E6	0000	1	Postal Clerk
PN	E7	0000	1	Personnelman
RM	E5 (2), E4 (3)	0000	5	Radioman
SH	E8, E6, E5 (5), E4 (2), E3 (3)	0000	12	Ship Serviceman
SH	E5	3122	1	Barber
SK	E7, E6 (2), E5 (4), E4 (2), E3 (6)	0000	15	Storekeeper
SN	E3 (10)	0000	10	Seaman
SW	E5, E4	6010	2	Adv. Steelworker
UT	E6 (2), E5 (5)	0000	7	Utilitiesman
UT	E5 (2)	6102	2	Boiler Tech
UT	E5	6104	1	Refrigeration Tech

**Table 1 Advance Party Composition
(500 Bed Cbtz)**

Corp/Rate	Rank	NEC/ NOBC	T/O	Title
UT	E6	6105	1	Adv. Utilitiesman
YN	E6	0000	1	Admin Chief
ET	E6	1446	1	Electronic Tech
ET	E5	0000	1	Electronic Tech
IC	E6	4713	1	Auto Telephone
DK	E6, E5, E4	0000	3	Disbursing Clerk
Total:			155	

Table 1 Summary

Corps/Rate	Total	Grade/Rank	Total
CEC	1	05	2
MC	1	03	4
MSC	4	02	1
NC	1	E9	1
Line	1	E8	1
CE	9	E7	4
CM	7	E6	25
EO	14	E5	28
ET	2	E4	39
HM	33	E3	49
JO	1	<p>Note: Best data available as of Dec 92. Will replace (?) when those table cells have been identified and then add those personnel to the summary.</p>	
MA	5		
MS	13		
PC	1		
PN	1		
RM	5		
SH	13		
SK	15		
SN	10		
SW	2		
UT	11		
YN	1		
IC	1		
DK	3		

Table 2: Air Detachment Plus Advance Party Composition (500 Bed Cbtz)

Corp/Rate	NEC/ NOBC	AD	AP	Total	Title
MSC (XO)	9436		1	1	OIC Advance Party
MC (GMO)	0108		1	1	Emergency Medicine
CEC (PWO)	4210/ 4255	1	1	2	Facilities Management Officer
MSC (EHO)	0861		1	1	Environmental Health Officer
MSC (FSO)	0876		1	1	Food Service Officer
MSC (OMS)	0820		1	1	Operating Management Services Officer
MSC (MMO)	?	1		1	Materiel Management Officer
Line (COMM)	9510	1		1	Communications Officer
Line (PAO)	2412		1	1	Public Affairs Officer
SC	1918	1		1	Supply Officer
NC	?		1	1	Nurse Corps Officer
HM (CMC)	0000		1	1	Command Master Chief
UC	0000	1		1	Assist. FMO
BU	0000	4		4	Builder
BU	5907	1		1	Adv. Builder
CE	0000	2	9	11	Construction Electrician
CE	5632	1		1	Power Plant Tech
CE	5635	1		1	Adv. Construction Electrician
CE	5642	1		1	Telephone Switchboard
CM	0000	4	7	11	Construction Mechanic
CM	5804	1		1	Diesel Mechanic
CM	5805	1		1	Adv. Construction Mechanic
EA	5503	2		2	Adv. Engineering Aide
EN	4317	1		1	Diesel Engineman
EO	0000	6	14	20	Equipment Operator
EO	5710	1		1	Adv. Equipment Operator
HM	0000		23	23	Hospitalman
HM	8425	1	2	3	Independent Duty Corpsman
HM	8432	1		1	Preventive Medicine Tech
HM	8452		1	1	X-Ray Tech.
HM	8478		4	4	BioMedical Equipment Tech
HM	8483		1	1	Operating Room Tech.
HM	8506		1	1	Laboratory Tech
IC	4713		1	1	Auto Telephone Repair

Table 2: Air Detachment Plus Advance Party Composition (500 Bed Cbtz)

Corp/Rate	NEC/ NOBC	AD	AP	Total	Title
JO	0000		1	1	Journalist
MA	0000	1	5	6	Master-At-Arms
MS	0000		13	13	Mess Specialist
MS	3529	1		1	Mess Supervisor
PC	0000		1	1	Postal Clerk
PN	0000		1	1	Personnelman
RM	0000		5	5	Radioman
SH	0000		12	12	Ship Serviceman
SH	3122		1	1	Barber
SK	0000	1	15	16	StoreKeeper
SN	0000		10	10	Seaman
SW	6010		2	2	Adv. Steelworker
UT	0000		7	7	Utilitiesman
UT	6102		2	2	Boiler Tech
UT	6184		1	1	Refrigerator Tech
UT	6105	1	1	2	Adv. Utilitiesman
ET	0000		1	1	Electronic Tech
ET	1446		1	1	Electronic Tech
GMG	0812	1		1	Gunners Mate Guns
YN	0000		1	1	Admin Chief
DK	0000		3	3	Disbursing Clerk
Total		38	155	193	

Table 2 Summary

Corps/Rate	Total	Grade/Rank	Total
CEC	2	O5	2
Line Officer	2	O4	1
MC	1	O3	6
MSC	5	O2	2
SW	2	E9	2
SC	1	E8	2
NC	1	E7	8
DK	3	E6	40
BU	5	E5	33
CE	14	E4	45
CM	13	E3	51

Corps/Rate	Total	Grade/Rank	Total
EA	2	Note: Best data available as of Dec 1992. Will fill in the (?) when those table cells have been identified.	
EN	1		
EO	21		
HM	35		
JO	1		
MS	14		
MA	6		
PC	1		
PN	1		
RM	5		
SH	13		
SK	16		
SN	10		
UC	1		
UT	12		
ET	2		
YN	1		
GMG	1		
IC	1		

Table 3: Advance Party Civil Engineering Support Equipment

DESCRIPTION	U/I	250 QTY	500 QTY	500 COMMZ QTY
TRUCK, CARGO, 1 1/4 TON	EA	0	1	3
TRUCK, AMBULANCE	EA	8	12	6
TRUCK, TRACTOR, 15 TON	EA	5	7	8
WELDER, ARC, 400 AMP	EA	1	1	1
TRAILER, ISO, 40 FT	EA	2	2	2
PUMP, DIAPHRAGM	EA	2	2	2
TRUCK, TANK, 1200 GAL	EA	1	1	2
TRUCK, WRECKER, 25 TON	EA	1	1	1
TRUCK, DUMP, 5 TON	EA	1	1	1
TRUCK, CARGO, 5 TON	EA	4	5	5
TRUCK, UTILITY, 3/4 TON	EA	2	4	4
LUBRICATOR*	EA	1	1	1
LAUNDRY UNIT	EA	2	2	4
REEFER, ISO 20 FT	EA	4	5	8
TRAILER, TANK, 400 GAL	EA	3	4	4

Table 3: Advance Party Civil Engineering Support Equipment

DESCRIPTION	U/I	250 QTY	500 QTY	500 COMMZ QTY
CLEANER, HIGH PRESSURE	EA	1	1	1
TRUCK, FIRE	EA	1	1	1
GENERATOR, 10KW*	EA	2	3	3
TRUCK, SEWER PUMP	EA	1	1	1
GENERATOR, 100KW	EA	19	21	50
BUS AMBULANCE	EA			2
PARTS COMMON MOD 97*	EA	1	1	1
CONTAINER HANDLER, 20K	EA	2	2	2
FORKLIFT, R/T, 4K	EA	3	3	3
TRAILER, FUEL, 5500 GAL	EA	1	1	1
TRAILER, WATER, 6000 GAL	EA	4	6	8
PARTS PARTICULAR MOD 98*	EA	1	1	1

* Item Containerized

4.3 Main Body

4.3.1 Scope

The main body consists of the remainder of the hospital staff. The arrival of the main body will bring the available staff up to 941 for a 500-bed combat zone fleet hospital. This section includes the responsibilities of the main body, a detailed task list, and composition tables of personnel and equipment.

A. Deployment

The main body will deploy in a manner similar to the advance party, meeting at a marshaling point, and traveling to the operational site. Details are highly variable; depending on the location of the individuals and the operational site, priority of need, and available transportation assets. Materiel must arrive at least two days before the main body.

B. Organization

The main body organization should be in accordance with the organizational charts, (Appendix B), with one modification: establish teams dedicated to erection of TEMPER tents using trained personnel as described in section 4.3.3.D. This will speed the erection process, and free other personnel to unstuff containers and prepare their functional areas for operations.

C. Time

The main body should be partially operational and begin accepting casualties 48 to 72 hours after arrival. This time frame assumes that personnel and materiel are both available at the site. It also assumes that the advance party has completed its tasks.

1. Priorities

The principal task of the main body is the assembly of the medical facilities. While many tasks can occur concurrently, there are specific dependencies which must be considered. For example, when connecting TEMPER wings to each other, those connections must be made beginning with the Administration wing - Specialty Treatment connection and then proceed in sequence through the last ward. Also, unless ISO shelters are precisely spotted TEMPER to shelter vestibules will not fit. Support area assembly can be accomplished at the same time as the medical facilities if manpower is available. The completion of laundry installation (remaining units) should be the first support area priority.

2. Transition

As the fleet hospital is completed, there will be a transition period from the assembly mode to the operational mode. Functional areas assembled first will become operational before other areas assembled later. As noted

previously, the entire hospital does not have to be operational before casualties can be treated. The Commanding Officer must balance competing requirements: the requirement to begin treating casualties, the man-hours diverted from assembly activities, and the difficulties anticipated from incomplete support areas. There is no single point that identifies when casualty receiving can begin. Only broad guidelines can be provided because much will depend on the tactical situation. In general, once the first OR, CSR, and ICU are operational, limited casualty receiving may begin, although full capability may be several days away.

3. NSN Packed Material

There are numerous items that are NSN packed in main supply. These items include D&D, hazardous/flammable, special requirements (e.g. temperature controlled), forms, "classic consumables," and some maintenance significant items. In addition, some material is packed with other IOLs (e.g. operating room tables are packed with the operating room shelter IOL vice the operating room equipment IOL). User-friendly technical data (IOL to NIIN, NIIN to IOL, packing lists) relates NSN-packed material requirements to specific functional areas. These lists, as well as a copy of the database, will be provided by the Activation Fleet Hospital Assistance Team.

4.3.2 Responsibilities

The main body responsibilities are to assemble the medical facility and remaining secondary support areas. The other primary responsibility is to transition from an assembly mode to an operational mode.

A. Medical Personnel

As noted earlier, there are insufficient public works and support personnel to assemble the entire fleet hospital in the required time frames. Medical Department personnel will be responsible for the erection and assembly of the medical facility. Assembly of the medical facility should proceed from the administration wing assembled by the Advance Party, and continue wing by wing until the full facility is completed. Work teams for TEMPER erection can be formed to gain the advantages of dedicated, trained crews. Each team or crew will be responsible for one phase of the TEMPER tent erection. These phases include staging, tent frames, exterior skin, tent flies, tent erection, plenums, electrical, floors, wing connections, and tent to ISO connectors. For example, the floor installation team would install all the floors. However, personnel assigned to each functional area should be tasked with unpacking and placing all medical equipment and supplies prior to operations. This will ensure that they are familiar with the equipment and supplies, and their location.

B. Nonmedical Personnel

Support personnel will assemble their work areas in the same manner as medical personnel. Public works personnel have the responsibility for installing and operating utility systems.

4.3.3 Main Body Task List

A. Facilities Management Officer (FMO), and Assistant FMO Tasks:

Ensure the proper erection and assembly of all structures. Direct the receiving and marshaling section in placing and spotting ISO shelters and shipping containers. Ensure that all utilities are properly installed. Complete installation of remaining laundry units and associated equipment.

B. Assembly of the Medical Facility

All hands tasks: As noted earlier, "assemble", includes five steps: gathering personnel, unstuffing containers, erecting structures, installing utilities, and setting equipment and supplies into place ready for use. Assembly of a Fleet Hospital requires the participation of the entire main body force.

C. Considerations

1. Erect the TEMPER wings using ten temporary teams.
2. Assemble the medical facility progressively from the administration wing and the central spine.
3. Erect the TEMPER wings in an assembly line fashion until the full facility is completed.
4. Do not overman the assembly teams
5. Consider port and starboard operations with the off duty shift in a crew rest status.

D. Temper Erection Team

Each TEMPER Erection Team will perform the tasks assigned:

1. Team #1 - Beginning with Specialty Treatment, remove and uncrate TEMPER material and stage for assembly.
2. Team #2 - Assemble tent frames, one wing at a time, starting from Specialty Treatment.
3. Team #3 - Rig exterior skin.
4. Team #4 - Rig tent flys.
5. Team #5 - Rig interior skins (liners) and erect tent.

6. Team #6 - Rig plenums.
7. Team #7 - Rig lights and receptacles.
8. Team #8 - Install floors.
9. Team #9 - Make TEMPER wing connections.
10. Team #10 - Make ISO to TEMPER connections.

E. Assembly of Functional Area

As the TEMPER wing for a Functional Area is completed, 10 members of that Functional Area will be designated to begin stuffing equipment/supplies into that wing.

1. Team members will be adjusted as the evolution develops to ensure proper utilization of personnel.
2. Packaging and packing materiel will be returned to shipping containers within the same functional area.
3. TEMPER Utility Teams tasks: Install external electrical connections. Connect all potable and waste water hoses.

F. Miscellaneous Tasks

1. Maintenance. Assist communications in the erection and installation of radio antennas and ground planes. Charge and test fire extinguishers. Repair equipment damaged in transit.
2. Medical Repair. Assist in unpacking and testing medical equipment, and repair equipment damaged in transit.
3. Materiel Management. Assemble chaplain's tent, barber shop tent and organizational clothing tent.
4. Prepare to accept casualties at the earliest possible moment.

4.3.4 Composition Tables

Table 1 Main Body Composition Summary (500 Bed CBTZ)

NON-MEDICAL		
Corps/Rate	T/C	Title
DC	1	Damage Control
DK	2	Disbursing Clerk
ET	1	Electronic Tech
GMG	1	Gunners Mate Gun
JO	1	Journalist
LN	1	Leagleman
MA	2	Master-At-Arms
MS	40	Mess Specialist
PC	11	Postal Clerk
PN	4	Personnelman
RP	3	Religious Program Specialist
SN	16	Seaman
YN	4	Yeoman
CHC	2	Chaplain Corps
Sub Total 89		
MEDICAL		
MC	68	Medical Corps
DC	6	Dental Corps
MSC/MMO	13	Medical Service Corps
NC	150	Nurse Corps
PA	7	Physician's Assistant
HM	438	Hospital Corpsman
DT	14	Dental Tech
Sub Total 696		
GRAND TOTAL 785		

Table 2: Phasing Summary (500 Bed CBTZ)

SEABEES				
Corps/Rate	AD	AP	MB	T/O
PWO	1	1		1
UCCM	1			1
BU	5			5
CE	5	9		14
CM	6	7		13

Table 2: Phasing Summary (500 Bed CBTZ)

SEABEES				
Corps/Rate	AD	AP	MB	T/O
EA	2			2
EO	7	14		21
SW		2		2
UT	1	11		12
SUBTOTAL	28	44		72
NON-MEDICAL				
DC			1	1
DK		3	2	5
EN	1			1
ET		2	1	3
IC		1		1
GMG	1		1	2
JO		1	1	2
LN			1	1
MA	1	5	2	8
MS	1	13	40	54
PC		1	11	12
PN		1	4	5
RM		5		5
RP			3	3
SH		13		13
SK	1	15		16
SN		10	16	26
YN		1	4	5
CHC			2	2
COMM	1			1
PAO		1		1
SC	1			1
SUBTOTAL	7	72	89	168
MEDICAL				
MC		1	68	69
DC			6	6
MSC	1	4	13	18
NC		1	150	151
PA			7	7
HM	2	33	438	473

Table 2: Phasing Summary (500 Bed CBTZ)

SEABEES				
DT			14	14
SUBTOTAL	3	39	696	719
TOTAL PERSONNEL	38	155	785	941

**APPENDIX D
EXPEDITIONARY AIRFIELD**

EXPEDITIONARY AIRFIELD MODEL#3

o TYPICAL EXPEDITIONARY AIRFIELD 2000

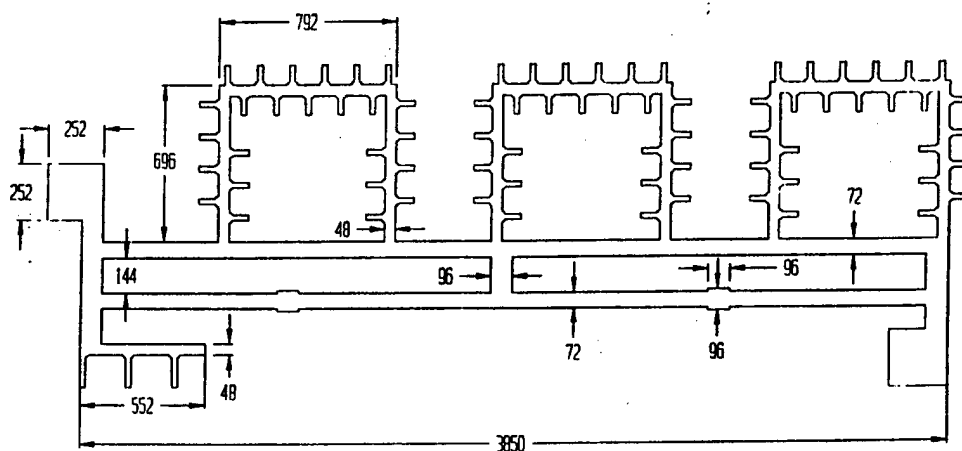
o o THREE M-21 AIRCRAFT RECOVERY SYSTEMS

o 248 ISO CONTAINER SPACES

o SUPPORTS GROUND AND AIR OPERATIONS OF:

KC-130	4
F-18A	12
F-18D	12
AV-8B	12
CH-46	12
CH-53E	10
AH-1	8
UH-1	8

MODEL #3



TYPICAL EXPEDITIONARY AIRFIELD 2000

EXPEDITIONARY AIRFIELD MODEL#3**TABLE 21
SITE PREPARATION**

EXPANSE	EQUIPMENT	PERSONNEL	SCHEDULE	TIME
MODEL #3	4 GRADERS	39	10 HRS/DAY	12 DAYS
	4 COMPACTORS			
	4 D7 CAT 1 W/RIPPER 2 W/WINCH 1 W/DRAWBAR			
	8 DUMP TRUCKS			
	4 TRAMS W/BUCKET			
	8 FORK LIFTS (6K)			
	3 SMALL DOZERS			

**TABLE 22
FIELD INSTALLATION**

EXPANSE	PERSONNEL	SCHEDULE	TIME
MODEL #3	108	10 HRS/DAY	17 DAYS

MEMORANDUM

Date: 20 September 1995

From: Major Dennis Spidal, COMNAVAIRSYSCOM, PMA251M

To: Commander Lawson

Subj: EXPEDITIONARY AIRFIELD (EAF) SPACE ON MPS

Encl: (1) Working copy of EAF requirement spreadsheet

1. CWO5 Paul Dossin of HQMC(ASL) requested that I provide the EAF foot print requirements for and EAF 2000 on MPS. The EAF Team at NAVAIR is working with HQMC to develop the MPS requirements for EAF.
2. The enclosure is the current requirement to load the existing EAF 2000 on MPS. It is a working document and is constantly changing. The final packaging will depend upon the load plan of the individual MPS Squadron.
3. The dimensions are the individual equipment sizes in the container space and the numbers in the columns are the pieces of individual equipment in the container space.
4. If there are any questions please contact me at (703) 604-3355 ext 8155, or DSN 664-3355 ext 8155.


Dennis Spidal

PKT	ITEM	DESCRIPTION	LENGTH	WIDTH	HEIGHT	WEIGHT	CONTAINER TRACKS																								UNITS	MTC
							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
750		MCH WORKSHOP VAN	240	80	80	6000																									4	ACE
751		KEY LOCK PKG	148.8125	20.1	30.375	2880																									4	ACE
752		FIELD LOCK KIT	86	17.215	82	2500																									4	ACE
753	MAP1580-14-WYE-6240	12 FOOT AND MAY PKG	148.8125	20.1	30.375	2880																									4	ACE
754		8 FOOT AND MAY PKG	74	20.1	30.375	1412																									4	ACE
755	MAP1580-14-WYE-6240	AND HEAVY DUTY MAY PKG	74	20.1	30.375	2280																									4	ACE
756		STAKE/EDGE CLAMP PKG	74	20.1	30.375	1775																									4	ACE
757		SEA PKG	74	20.1	30.375	1421																									4	ACE
758		H-CONNECTOR	74	20.1	30.375	2165																									4	ACE
759		APPROXIMATE DOORS	74	20.1	30.375	1250																									4	ACE
760	MAP1710-01-100-2760	121 AND TAPERED PKG	79	79	82.8	8200																									4	ACE
761	MAP1710-01-100-2761	121 AND RETRIVE END PKG	87	84.3	70.4375	3382																									4	ACE
762	MAP1710-01-100-2762	121 AND SPECIAL LOCKS PKG	107.5	79	30.3125	1800																									4	ACE
763	MAP1710-01-101-1480	121 AND APPROXIMATE END PKG	103.75	81	84	8488																									4	ACE
764	MAP1710-01-080-0261	121 AND APPROXIMATE PKG	126.5	87.0625	30.0625	2170																									4	ACE
765		FRESH CEMENT CLE	111	85	80.5	11,000																									4	ACE
766		ELECTRICITY WORKSHOP	240	80	80	7,500																									4	ACE
767		REPAIR CABLES	240	80	80	35,000																									4	ACE
768		FLUORIDE LIGHTS	74	20.1	30.375	1700																									4	ACE
769		FLUORIDE LIGHTS	74	20.1	30.375	1000																									4	ACE
770		TAXIWAY EDGE LIGHTS	74	20.1	30.375	1000																									4	ACE
771		TAXIWAY EDGE LIGHTS	74	20.1	30.375	1000																									4	ACE
772		APPROACH LIGHTS	74	20.1	30.375	800																									4	ACE
773		APPROACH LIGHTS	148.8125	20.1	30.375	1700																									4	ACE
774		STROBE LIGHTS	74	20.1	30.375	800																									4	ACE
775		STROBE LIGHTS	148.8125	20.1	30.375	2400																									4	ACE
776		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
777		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
778		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
779		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
780		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
781		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
782		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
783		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
784		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
785		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
786		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
787		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
788		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
789		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
790		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
791		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
792		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
793		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
794		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
795		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
796		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
797		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
798		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
799		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
800		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
801		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
802		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
803		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
804		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
805		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
806		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
807		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
808		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
809		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
810		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
811		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
812		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
813		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
814		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
815		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
816		STROBE LIGHTS	74	20.1	30.375	1000																									4	ACE
817		STROBE LIGHTS	74	20.1	30.375	1000																										

APPENDIX E NMCB ITEMS OF EQUIPMENT

PLANNED EQUIPMENT (ABFC P-25) FOR MPFE

DESCRIPTION	QUANTITY
TRK UTILITY, COMM	12
TRK AMBUL FLD COM 4X4 DED	2
TRK CARGO	16
TRK MAINT UTIL 4X4 DED	4
TRK WRECKER 25T 6X6 DED COMM	2
TRK TRAC, 6X6, DED, 46000 GVWR	6
TRK DUMP 10CY 6X6, DED 46K GVW	16
TRK STAKE 6X6 DED 46K GVW	20
TRK FLD SERV 4X4 DED 24K GVW	2
TRK TANK FUEL SERV 4X4 1500	4
TRK TRAC, 6X6, DED, 60K GVWR	4
TRLR BOLSTER PIPE/POLE 13T	1
TRLR TANK 400 GAL POTABLE WTR	4
DOLLY TRLR CONVERTER 9T COMM	5
SEMI-TRLR 35T LOWBED RIG NECK	13
TRACTOR CWRLR 200HP W/WINCH	3
TRACTOR CRLR 200HP TILT BLD RIP	3
TRACTOR CWRLR 105HP W/ROPS	2
TRACTOR, WHEELED	2
SAW WOODWR 16N RADIAL	4
WELDER ARC 300 AMP W/TIG	7
FIELD, LAUNDRY UNIT	2
DITCHING MACH LADDER CWRLR	1
GRADER ROAD AIR TRANSPORT	6
LOADER SCP F/TRK 2.5CY ROPS	4
DITCHING MACH WHEEL CWRLR	1
EXCAVATOR TRACKED W/ACCESS	2
LOADER SCP WHL 4X4 2CY ROPS	3
SCRAPPER TRACTOR WHL 9 CY	8
LOADER SCP WHL 4X4 2.5CY ROPS	3
CRANE TRK MOUNTED 2 ENG	2
CRANE WHL MTD 14T CONTAINER	2
AUGER EARTH TRK MTD	2
DRILL WELL 1500FT ITWD	1
SWEEPER MAGNET TOWED	2
DISTRIB WATER 2000 GAL 6X6	6
ROLLER COMPACT 9 WHL	2
MIXER CONC 11 CUFT WHL MTD	2
EXTRACTOR PILE PNEU 100T	1
HAMMER PILE W/LEADS DIESEL	1
DISTRIB ASPHALT 6X6 24 FT	1
ROLLER VIB ART-STEER ROPS	2
TRK FORKLIFT 4K DED R/T 4X4	5
TRK FORKLIFT 12K DED R/T 4X4	7
SLING BOTTOM	2
COMPRESSOR AIR 750 CFM	1
COMPRESSOR AIR 250 CFM	4
COMPRESSOR AIR 750 CFM/300 PSI	1
PUMP, CENT, SALT WTR 500 GPM	2

APPENDIX E

DESCRIPTION	QUANTITY
PUMP CENT 400 GPM	7
SPRAYER DECON SKID MTD 50 GRM	2
PUMP CENT TRASH 1000 GPM	1
PUMP RECIP 100 GPM	2
PUMP, WATER SIXCON	2
WATER PURIF UNIT 3000D	2
LUBE UNIT SKID W/AIR COMP	1
PUMP FUEL SIXCON	6
SHOP EQUIP REPAIR SEMI-TRLR	1
CONNECTOR ISO H	6
TENSION FAB STR	7
TNK FAB 10K FUE	4
TNK FAB 3K FUEL	3
TNK FAB 3K WTR	6
TNK FAB 10K WTR	8
TNK FAB 3K ONION	6
PNLBOARD 30KVA	4
PNLBOARD 15KVA	12
PNLBOARD 10KVA	9
PNLBOARD 400 A	3
GEN, 200KW MEP009B	2
GEN 10KW MEP003A	2
GEN 15KW SKID MTD MEP 804A TQ	4
GEN 30KW SKID MTD MEP 805A TQ	3
FLOODLIGHT TRLR	10
JACK SYS (ILJS)	2
CONTAINER 5B	1
SIXCON TANK WTR	10
SIXCON TANK POL	26
CONTAINER 1/2HT	7
CONTAINER FLTRK	13
CONTAINER 3A/2B	1
CONTAINER 2A/5B	1
CONTAINER 3A/5B	10
TRICON D1A/D18	1
TRICON BULK	6
CONTAINER 4A/4B	6
TRICON ARMORY	1
TRICON D3C	2
CONTAINER ARMORY	2
CONTAINER BULK 20	50
TRICON D2A/D2B	4
REEFER 8X8X20FT	2
TNK FAB 3K WTR	1

Note: 1. Equipment does not include any class IV construction material.
2. List is being reviewed by the Marines.

**APPENDIX F
TABLE OF EQUIPMENT RESTORATION**

<u>NOMENCLATURE</u>	<u>QTY</u>	<u>SQ FT</u>
MIAI TANK COMBAT FT 120MM GUN	28	9,968
MK48 POWER UNIT, FRONT 12.5T 4X4	12	1,912
MKI4 TRLR, POWERED, 22.5T CONTR	12	2,080
RTCH CONTAINER HANDLER RT 50K	2	1,373
M923 TRUCK, CGO, 5T, 6X6	50	12,550
TOTAL		27,883

JTF HEADQUARTERS

<u>NOMENCLATURE</u>	<u>QTY</u>	<u>SQ FT</u>
M923 TRUCK, CGO, 5T, 6X6	5	1,255
M1038 TRK, UTILITY	12	1,368
CHASSIS, TRAILER	2	194
GENERATOR 7K, W/TRAILER	2	254
FLOODLIGHT	2	172
TOTAL		3,243

**APPENDIX G
TEAM MEMBERS**

**Mr. Lee Ewert
Evaluation Director**

**Commander William H. Kimball, USN
Evaluator**

**Commander A.L. Lawson, USN
Evaluator**

**Ms. Nakita Pounds
Evaluation Coordinator**

INTERNET DOCUMENT INFORMATION FORM

A . Report Title: The U.S. Marine Corps Maritime Prepositioning Force Enhancement Program

B. DATE Report Downloaded From the Internet: 12/15/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):
OAIG-AUD (ATTN: AFTS Audit Suggestions)
Inspector General, Department of Defense
400 Army Navy Drive (Room 801)
Arlington, VA 22202-2884

D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

F. The foregoing information was compiled and provided by:
DTIC-OCA, Initials: __VM__ Preparation Date 12/15/99

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.